REMARKS

INTRODUCTION

In accordance with the following, reconsideration of the allowability of the pending claims is respectfully requested.

Claims 1-27 are pending and under consideration, with claims 4-7, 12-15, and 20-24 having been indicated as including allowable subject matter.

NEWLY CITED REFERENCE MATSUZAKI ET AL.

The Office Action has newly cited <u>Matsuzaki et al.</u>, U.S. Patent No. 2002/0067318, as further supporting either the obviousness of the proffered modifying of <u>Tokui</u>, U.S. Patent No. 5,987,532, or the obviousness of combining <u>Tokui</u> and <u>Casady et al.</u>, U.S. Patent No. 4,759,009, to disclose features of the claimed invention.

However, it is respectfully submitted that <u>Matsuzaki et al.</u> has been misinterpreted and actually teaches away from either of the Office Action's potential proposed modifications of <u>Tokui.</u>

In particular, the Office Action has relied upon embodiments 6 and 7 of <u>Matsuzaki et al.</u> as disclosing the transmitting of an alert signal to <u>both</u> next and previous image display apparatuses in response to a power supply to a corresponding image display apparatus being interrupted.

However, the relied upon embodiments of <u>Matsuzaki et al.</u> are actually focused on an automated master/slave designation of a branch connector for connecting the master branch connector with a host computer, communicating between the master branch connector and the host computer to send display data to the master branch connector based upon status information of the master branch connector, so the master branch connector can then relay that display information to the slave branch connectors. Below, embodiment 6 is referenced as an example.

First, see FIG. 47, illustrating host computer 5001 and branch connectors 5003a, 5003b, and 5003c, with each individual branch connector communicating with its respective display 5002a, 5002b, and 5002c.

Also see <u>Matsuzaki et al.</u> beginning in paragraph [0448], discussing FIG. 48 illustrating the connector 5003a in more detail, and <u>Matsuzaki et al.</u> beginning in paragraph [0455], discussing the mode determination switch of the connector 5003a in more detail, with <u>Matsuzaki et al.</u>, in paragraph [0457], beginning the explanation of the master/slave operation.

More particularly, when an upstream signal PWON received at the connector 5003a is first high and then low, the connector 5003 further monitors a subsequently received SIN signal to see if a pulse signal is sent within 200ms, after a Lo SOUT signal is sent by the connector 5003a to the host 5001. If the pulse signal is detected, then the connector 5003a becomes the master connector and starts serial communication with the host computer 5001.

The master connector 5003 then sets the output SOUT, corresponding to SIN for the downstream connector, e.g., connector 5003b, which notifies the downstream connectors that they are merely slave connectors. This is explained more with FIGS. 50-52 of Matsuzaki et al.

Paragraphs [0469]-[0471] more clearly detail the differences between the master and slave operation, where regardless of automated high or low signals received from an upstream or downstream connector, the primary operation of each connector is based on whether that connector is a master connector or a slave connector. The master connector ignores signals from the downstream connectors, and maintains a signal O-SIN output to the downstream connector high to maintain the downstream connectors in the slave mode.

With this understanding, it can be seen that each connector operates in an automated manner, to signal with an upstream connector or a downstream connector based solely upon the operations of the same connector. Each connector is capable of being a slave or a master connector and the automated signaling from/to a connector is merely ignored based upon the slave or master determination.

Beginning in paragraph [0472], <u>Matsuzaki et al.</u> then explains how each connector operates when a display connected to the respective connector is removed or its power supply is turned off.

In particular, when such a interruption is detected, SOUT and O-OUT, and SIN and O-SIN are merely connected through a switch, as if that interrupted connector never existed. Here, since PWON and O-PWON is connected throughout the connector, the PWON signal provided to the interrupted connector is merely forwarded as a PWON provided to the downstream connector.

If the interrupted connector is a master connector, then O-PWON of the interrupted connector is temporarily set high and then set low, which when detected by the downstream connector starts a process of connecting with the host computer as a master connector, again, just as if the master (interrupted) connector never existed.

Here, the disconnected slave connector does not send an alert that there has been a power interruption to either the upstream or downstream connectors. Rather, the input/output of that connector are jumped as if that slave connector never existed.

Similarly, if the connector is a master connector, <u>Matsuzaki et al.</u> does not indicate that any special alert is sent to the host computer, and indicates that the downstream connecter is provided a signal to initiate communication with the host computer, just as if the same connector was immediately following the host computer and the host computer was powered up, i.e., the previous master connector is also ignored as if it never existed.

Thus, <u>Matsuzaki et al.</u> actually discloses a system that have separate operating connectors that operate independent of the status of their upstream or downstream connectors, i.e., a downstream connector does not receive any special alert of a status of an upstream connector and an upstream connector does not receive any special alert of a status of a downstream connector.

Each connector automatically and independently operates in the displaying system and does not need to know the status of an upstream or downstream station.

Accordingly, the teaching that should be taken from <u>Matsuzaki et al.</u> is that it is beneficial to simply display connections so that <u>less</u> communication with the host computer is necessary, and that each display connector can operate independently and irrespective of their neighboring connectors.

Therefore, it is respectfully submitted that the Office Action's interpretation of <u>Matsuzaki</u> et al. and the described automated signaling between connectors as corresponding to the claimed alerts is incorrect.

Further, as noted above, this disclosure of <u>Matsuzaki et al.</u> actually teaches away from the Office Action's proffered modification of <u>Tokui</u> or the proffered combination of <u>Tokui</u> and <u>Casady et al.</u>

REJECTION UNDER 35 USC 103

Claims 1-3, 8-11, 16-19, and 25-27 stand rejected under 35 USC 103 as being obvious over Tokui, in view of Casady et al. and/or Matsuzaki et al. This rejection respectfully traversed.

As noted in the previous response, and only as an example, the independent claims at least claim (with differing scope an breadth) the transmitting of an alert, in response to a "power supply to one image display apparatus among the plurality of display apparatuses being interrupted," to next and previous display apparatuses, as stated in independent claim 1, for example.

Serial No. 10/668,374 Docket No.: 1293.1850

Thus, there must be a plurality of display apparatuses and the alert must be transmitted in response to an interruption of a power supply to one of the image display apparatuses.

Page 7 of the outstanding Office Action briefly indicates that applicants' previous response was not persuasive, but further indicates that <u>Matsuzaki et al.</u> has been added to the previous rejection to "elaborate the above argument further."

The Office Action further notes that <u>Casady et al.</u> fails to disclose "a plurality of displays associated with each terminal to display major or minor alarm system for user to act on."

Thereafter, the Office Action briefly traverses applicants' previous arguments against the feasibility of combining features of <u>Casady et al.</u> into <u>Tokui</u>, arguing that the Examiner is not arguing that the features of <u>Casady et al.</u> are bodily being incorporated into <u>Tokui</u>.

First, with regard the addition of <u>Matsuzaki et al.</u>, it is believed the Examiner has attempted to provide further evidence of conventional linked displays that are connected through a serial connection.

However, it is applicants contention that, still, none of the cited references discloses or suggest the particularly claimed system.

In addition, as noted above, the cited <u>Matsuzaki et al.</u> actually teaches away from modifying either of <u>Tokui</u> or a combination of <u>Tokui</u> and <u>Casady et al.</u>, with <u>Matsuzaki et al.</u> explaining that different connectors for different displays can be independent and do not need to have any particular communication with upstream or downstream connectors.

In essence, <u>Matsuzaki et al.</u> teaches that identical connectors can be connected, one of the connectors will become a master connector when a particular master initiation signal is received, i.e., the high then low PWON signal and then the SIN pulse within 200ms, and the remaining connectors will merely become slave connectors. If one the power to one connector or the display is interrupted, then switches in that connector make the lack of that connector seamless, <u>without the need of alerts to an upstream connector and a downstream connector</u>.

Thus, it is respectfully submitted that <u>Matsuzaki et al.</u> actually teaches away from the Office Action proposed modification of <u>Tokui</u>, which would appear more similar to <u>Matsuzaki et al.</u>, having independent modules.

In paragraph [0504], <u>Matsuzaki et al.</u> further points to the benefit of such an independent master/slave system:

In a peripheral device system which connects a plurality of peripheral devices by branching them from a single communication bus, one of these peripheral devices is permitted to communicate control information other than data to be processed by the individual peripheral devices, and other

peripheral devices is automatically inhibited from communicating the control information. For this reason, in such peripheral device system, communications pertaining to the control information can be implemented by a lower-cost arrangement.

Thus, <u>Matsuzaki et al.</u> actually teaches away from the Office Action proposed modification of <u>Tokui</u>.

In addition, in the system of <u>Tokui</u>, it is further respectfully submitted that the Office Action's proposed modification would not appear necessary, as direct communication for each display unit with computer may already be available, as each display unit has a particular ID.

<u>Tokui</u> sets forth a system of serially connected display units that transfer video data through the serial connection. The focus of <u>Tokui</u> is in setting and using ID codes for each unit. As shown in FIG. 1, actual display units U1, U2, U3, and U4 are serially connected.

<u>Tokui</u> further explains that the display units may be projection TVs, for example, which receives particular image data for that display unit. The display units are end devices for receiving video information and displaying the same.

The primary focus of <u>tokui</u> would appear to be the setting and using of ID codes for each unit using a serial data transmission. For example, in col. 4, lines 62-67, <u>Tokui</u> sets forth: "[f]urther, unlike the case of using a bus, in which a plurality of parallel lines are required, the serial data transmission of the invention allows data to be transmitted by, e.g., a pair of lines twisted. In addition, since the respective display units can be connected in a cascade manner, the system construction can be simplified."

Thus, conversely to the disclosure of <u>Matsuzaki et al.</u>, <u>Tokui</u>, would appear to require more control and interaction with each display apparatus.

In such a system of <u>Tokui</u>, such additional control and interaction would probably include direct communication with the computer such that the computer could directly "ping" a particular display apparatus or the lack of receipt of information from a particular display apparatus may be detected by the computer.

Here, it would appear that <u>Matsuzaki et al.</u> would actually teach that <u>Tokui</u> should simplify the corresponding system, without direct communication.

Regardless, in either system, neither disclose or suggest alerts being shared with neighboring display apparatuses.

In addition to relying on <u>Matsuzaki et al.</u> to disclose the claimed "transmitting an alert signal, in response to a power supply to one image display apparatus among the plurality of image display apparatuses being interrupted, to next and previous image display apparatuses

٠,

Serial No. 10/668,374 Docket No.: 1293.1850

which are connected to the one image display apparatus to which the power supply was interrupted, indicating that the power supply to the one image display apparatus is interrupted." the Office Action is again relying on Casady et al. to disclose these features.

However, as noted previously, Casady et al. sets forth a fundamentally different system. for a telephone/data T1 system wherein the 24 data channels in the T1 line are divided to respective terminal stations through T1 line connecting the terminal stations. Based upon select alarm bits in select frames/packets, alarm information for each terminal can be identified

Casady et al. discloses a higher-level control of data, i.e., not at the end display unit but at a terminal providing data to a number of end user/subscriber stations. Connections to the end user/subscriber are parallel bus connections.

Again, the focus of Casady et al. is in identifying whether the higher-level terminals 13a-13d are in alarm, not whether the end user/subscriber stations are in alarm.

In response to similar above remarks and the further remarks presented in the previous response, the Office Action has indicated that the test of obviousness is not whether two systems can be bodily incorporated together, but whether their teaching would lead one to make corresponding modifications to the primary reference.

However, applicants respectfully submit that the above discussion of Matsuzaki et al. further supports the conclusion that making the corresponding display system more complicated is not desirable, i.e., substantially modifying Tokui to include the unnecessary features of Casady et al. would complicate the system of Tokui and increase costs. In addition, such a modification of Tokui would actually increase the required monitoring and communication throughout the system of Tokui, while Matsuzaki et al. points out that this is not a benefit, but a drawback of conventional systems.

In addition, it was also previously noted that while Tokui is directed to the lower level interconnection between a computer and display units using IDs sent to each display apparatus, there is insufficient evidence in the record that Tokui is even modifiable for such arrangement, as the underlying structures of the systems are completely different.

As noted, Casady et al. is a T1 data transmission system with remote data transmission terminals to provide data to end users, with a particular data stream protocol for each end user/subscriber and a particular T1 protocol between remote terminals, while Tokui is a video distribution system for serially providing video data from a single computer to several display units, with also a particular video data protocol between the computer and the display units.

Further, the data transmission protocols are fundamentally different, the focus of the underlying inventions are fundamentally different, and the required systems and hardware for implementing both inventions are fundamentally different.

It is unclear from the record how <u>Tokui</u> would be modified, or whether the same could even be modified as proposed.

As stated in MPEP 2141, a prima facie obviousness case must also present evidence that the proposed combination has a "reasonable expectation of success."

Rather, the citation of <u>Casady et al.</u> is more focused on citing features that are not disclosed within <u>Tokui</u>, and concluding that <u>Tokui</u> could be modified to include the same feature for the benefit presented in <u>Casady et al.</u>

However, as the two systems are so fundamentally different, the benefit or need of a feature in <u>Casady et al.</u> is equally unrelated to <u>Tokui</u>.

Regardless of a need or desire for a feature in <u>Casady et al.</u>, that need or desire must have some relationship with <u>Tokui</u>.

However, the Office Action has actually cited features from <u>Casady et al.</u> that are not needed or desired in Tokui.

Further, as noted above, <u>Matsuzaki et al.</u> further teaches that complicating such a system is not desired.

Accordingly, it is respectfully submitted that it would not have been obvious to take the T1 alarm system of <u>Casady et al.</u> and attempt to implement the same in the video signal distribution system of <u>Tokui</u>. There is no need or desire for such an alarm system in <u>Tokui</u>

In addition, it is also respectfully submitted that it would not have been obvious to modify either of <u>Tokui</u> or a combination of <u>Tokui</u> and <u>Casady et al.</u> to include features from <u>Matsuzaki et al.</u>.

Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Stephen N. Boughner

Registration No. 45,317

1201 New York Avenue, NW, 7th Floor

Washington, D.C. 20005

Telephone: (202) 434-1500 Facsimile: (202) 434-1501